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## A TABLE COMPRISING FOLDABLE LEGS

The present invention is concerned with a new type of a table, of which the legs can be folded and, if need be, adjusted in their length.

5        Tables with retractable legs, or folding tables, have been known for a long time and have been proposed mainly in cases where the tables are to be used only occasionally and / or need to be transported, particularly in view of facilitating their storage.

10        In general terms, one can say that the solutions suggested to this day consist in holding in position hinged legs, for example by means of screwed on linkage members.

Such a linkage between said table top proper and the legs not only increases manufacturing costs, but also makes such articles vulnerable to adverse weather conditions, since the screws used may rust.

15        A new type of table has been designed, which overcomes the drawbacks of the solutions proposed to this day, and which is the object of the present invention.

In general terms, the table according to the invention is of the type comprised of a table top and of legs, hingedly connected to said table top, and it  
20 is characterized in that :

- the table top is formed as a single block obtained by a molding technique called " blow-molding " (for instance, of polyethylene), with peripheral grooves being provided on the underside of the table top, these grooves being partly closed by a plurality of flexible stoppers, also formed directly during the molding,
- 25        - the legs are formed from tubes which can be force-fitted in said grooves; they are advantageously formed from U-shaped tubes of circular cross-section;
- means of a known type (compass type) are associated with said legs for locking the same in their unfolded position.

Advantageously, in practice :

- 30        - the underside of the table top further carries ribs for improving rigidity ;
- the legs, when folded up, are wholly housed in peripheral longitudinal grooves ;

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- the means for maintaining said legs in their unfolded position are comprised of known compass-type systems, mounted, on the one hand pivotally to each leg and, on the other hand, also pivotally to T-shaped members which have been fixed to the table top by overmolding.

5       The invention and the advantages it provides will however be better understood from the exemplary embodiment described hereafter for illustrative but non-limiting purposes, and which is illustrated in the appended schematic drawings, wherein :

- figure 1 is a perspective view of the underside of a table in accordance  
10       with the invention, with the legs being folded back inside said table top,

- figure 2 is a view similar to that of figure 1, showing the manner in which holding of the legs is ensured when the table is unfolded,

- figures 3 and 4 are partial views, taken in cross-section along lines XX and YY, and showing the manner in which the tubes forming the legs are  
15       retained in the table top according to the invention.

Referring now to the appended drawings, the table in accordance with the invention is comprised essentially of a table top (1) manufactured by a conventional blow-molding technique well known to those skilled in the art and, accordingly, for reasons of concision, will not be described in more detail.  
20       Preferably, such a table top (1) is based on polyethylene, which offers the advantage of being easy to process by the blow-molding technique and which, furthermore, does not decay, and is insensitive to ultraviolet radiations and to detergent substances.

This table top (1) has a configuration such that its lower face is provided  
25       with peripheral grooves designed not only for holding the pivoting legs that such a table comprises, but also for housing said legs when they are folded back.

As is clearly apparent from the appended drawings of the embodiment illustrated, the legs (2 - 3 - 4 - 5) are formed from tubular members having the shape of a "U" and made, for example, from duralumin. The bases (6 - 7) of  
30       these tubular members are force-fitted into the peripheral grooves (8) and (9). The retention of the bases (6) and (7) is ensured by stoppers (10 - 11) formed

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directly in the molding operation. In the present case, the number of stoppers is three for each one of the bases (6) and (7).

In order to ensure that the legs remain in their unfolded position, conventional locking systems are also provided. In the embodiment illustrated, these locking systems (12) are of the compass type. Each compass-type locking system (12) is attached, on the one hand, via a pivot (13) to a leg and, on the other hand, to a T (14) embedded by molding in the table top (1). The T's (14) are positioned inside longitudinal grooves (15), these grooves being dimensioned in such a manner that, when the legs are folded, they are housed and positioned side by side within said grooves. Lateral stoppers (16), visible only in figure 1, are also provided in order to ensure the retaining of the legs in the folded position.

Furthermore, ribs (17) are formed in the central part for improving the overall rigidity.

Compared to former tables, such a table is very light, can be mass-produced, and can be assembled without requiring any special tooling. Furthermore, owing to the nature of the material from which it is made, it can practically not decay and is insensitive to UV radiations.

Clearly, the invention is not limited to the exemplary embodiment described above, but encompasses all other alternate versions thereof, construed in the same spirit.

Thus, one could consider locking the legs in their unfolded position, not by using the compass-type systems described above, but by any other equivalent means, for example by providing additional grooves in the central part which would be parallel to the grooves (8) and (9) and into which would be force-fitted a cross-bar connected to the legs.

One could also consider designing tables comprised of two table tops hingedly connected together, such table tops being produced directly by molding. In this alternate version, each one of the table tops would include retractable legs made according to the invention, and, furthermore, the ribs (17) could be shaped to form recesses, which could receive various items (bottles, picnic items ...).

In addition, since the table top is recessed, one can affix thereto some ballast for the purpose of further stabilizing the table.

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## CLAIMS

1 / A table comprised of a table top (1) and of legs (2 – 3 – 4 – 5), hingedly connected to said table top (1), characterized in that :

- 5           - the table top (1) is formed as a single block obtained by a molding technique called " blow-molding ", with peripheral grooves (8 – 9) being provided on the underside of the table top, these grooves being partly closed by a plurality of flexible stoppers (10 – 11), also formed directly during the molding ;
- the legs (2 – 3) and (4 – 5) can be force-fitted in said grooves ;
- 10          - locking means for the unfolded position are associated with said legs.

2 / A table according to claim 1, characterized in that the legs (2 – 3) and (4 – 5) are formed from tubes, preferably of a circular cross-section and having the shape of a U.

3 / A table according to one of claims 1 or 2, characterized in that the table  
15 top (1) includes ribs (17) designed for improving rigidity.

4 / A table according to one of claims 1 to 3, characterized in that the legs, when folded back, are wholly housed in peripheral additional longitudinal grooves.

5 / A table according to one of claims 1 to 4, characterized in that means  
20 for locking the legs in their unfolded position are comprised of compass-type systems (12), mounted, on the one hand pivotally to each leg and, on the other hand, pivotally to angle sections (14) embedded by overmolding in the table top (1).